

REMARKS

Independent claims are amended to more clearly define the invention.

Supports for the following recitations are found on the pages indicated.

- at least 0.0075 inch thick - Summary of the Invention (e.g., page 3, line 14);
- having laminated thereon a face material - page 6, lines 5-9 and FIG. 1 and FIG. 2;
- face material being a single sheet material - e.g., page 6, lines 14-21;
- having a first layer and second layer - e.g., reference numerals 13, 14, 22, and 24);
- an insulating label stock comprising a thermal insulating layer and a face material – original claim(s); and
- the second layer has a lower melting temperature than said first layer - paragraph bridging pages 6 and 7.

Claims 1-4, 6-11, 18-19, 21-23, 27-28, and 31-32 were rejected under 35 USC 103(a) over Tollette and Keiser. The rejection is traversed for the following reasons.

The following table compares claim 1 and the disclosures of Tollette and Keiser.

Claim 1	Tollette	Keiser
An insulating stock, at least 0.7075 inch thick, comprising	A label comprising superposed layers of	A composite sheet (FIG. 1) including a substrate (12), adhesive (14) and release liner (16);
a thermal insulating layer having a thermal resistance of 0.05 to 0.5 CLO and two faces;	foam being adhered to	the <i>release liner</i> including a support layer, which
the face material is a single sheet having two layers in which	Paper, which is in turn being adhered to a film (column 2, lines 40-46 and FIG. 1);	is a sheet of microcellular foam (FIG. 2, reference numeral 18) (also column 4, lines 44-51) and metallized films, metallized paper, and metal foils are equivalent of polymer foams (col. 3, line 59 to col. 4, line 3) (<i>these materials are thermal conductors, not thermal insulators</i>)
the second layer has a lower melting temperature than the first layer	(<i>paper cannot and does not have two layers</i>)	(<i>release liner generally is peeled off from label</i>)

The table shows that Tollette does not disclose or suggest a label stock comprising a thermal insulating layer having laminated thereon a face material that is a single sheet material. The single sheet recited in claim 1 has two faces that are

made of different materials. The claim limitations are disclosed in applicants' FIG. 1 (reference numerals 12, 14, 22, and 24) and FIG. 2 (reference numerals 12, 14).

1. Examiner's Office Action and Tollette Disclosure

On page 3 of the Office action (OA), the examiner's calculation may show that the thermal resistance disclosed in Tollette would have been within the range of that recited in claim 1. However, the examiner failed to take it into account that Tollette label requires adhesives on both sides of the foam. It is well known that adhesives decrease thermal resistance.

First sentence on page 4 of the OA stated that Tollette comprises paper or film. The examiner employed "comprises" which, applicants submit, is in error because Tollette FIG. 2, reference numeral 18, does not suggest "comprises". Tollette in fact discloses paper ***being adhered to*** the foam on one side and to a film on the other. Paper is the face material. Tollette further discloses an additional sheet(s) (or layer(s)) are required besides the paper layer. *See, e.g.*, Reference numerals 12 (FIG. 1) and 12 and 28 (FIG. 2).

In the second sentence on page 4 of OA, the examiner then purported to quote Tollette as disclosing the thermal insulating layer being laminated to at least one sheet of coextruded film comprising a first layer and a second layer. Applicants submit that the examiner erred.

A coextruded film requires two thermoplastic polymers that can be fed separately into a twin screwed extruder to produce a single film having two layers from these two polymers. Tollette clearly discloses paper is *adhered* to the foam. Paper cannot be extruded or coextruded.

Instead of paraphrasing the Tollette disclosure, applicants copy the disclosure in column 3, lines 8-15, as follows.

The laminate 10 comprises a face or top layer of a transparent [*sic*], colored or colorless protective film. Typical among the films useable are case [*sic*] or biaxially oriented polypropylene, low and high density polyethylene, and coextrusions of films of polyethylene with other *monomers*, such as vinyl acetate, and coextrusions of two different densities of an olefin (*italicized "monomers"* applicants').

The word "case" may be an oversight. It probably should read "cast". Secondly, polyethylene cannot be "coextruded with *"monomers"*". Coextrusion is made between two or more polymers and cannot be made with monomers.

Disregarding whether Tollette disclosure makes sense, applicants submit that the top material referred to in Tollette is the film layer (reference numeral 12) that is *not* laminated onto the insulating layer, nor is the thermal insulating layer laminated to at least one sheet of coextruded film comprising a first layer and a second layer made of different materials, as the examiner incorrectly suggested (OA, page 4, lines 3-7).

In fact, the examiner has acknowledged that the face material comprises paper (paper layer). See, e.g., OA, page 4, line 1. The examiner cannot change the interpretation of Tollette as the examiner wished. The film layer quoted by the examiner is *not* laminated onto the thermal insulating layer, as required by the claimed invention.

Page 4 (OA), fourth sentence stated that the face material is modified on the surface facing *away* from the thermal insulating layer. Again, applicants submit that this is in error.

Assuming that the examiner, referring to reference numerals 18 and 14, referred to the ink layer 16, applicants submit that the ink layer adheres to the face material “paper” (*see* above, the examiner correctly referred to the paper layer as the face material). That is, the surface for printing is the surface facing *towards*, *not away from* the insulating layer.

Applicants also respectfully disagree with the examiner’s assertion, page 4, line 4 from bottom of the OA, that Tollette discloses that the face material comprises a first layer and a second layer. As discussed above, the examiner has noted that the face material is paper. A paper cannot have two layers because it is not a laminate produced from two polymer layers. Reference numeral 12 referred to by the examiner is a film that is merely adhered to paper. Reference numeral 12 cannot be laminated onto the paper and is *not a layer* of the paper.

The examiner then stated (OA, page 4 last sentence to page 5) that Tollette discloses another face material on the side of the thermal insulating layer facing away from the thermal insulating layer and references layer (reference numeral 28) and that Tollette discloses an insulating layer that is laminated between two sheets of face material, citing the paper (layer 18), the insulating layer (22), and release layer 28 as the other face material.

Applicants again submit that the examiner erred because layer 28 is not another face material. Tollette clearly discloses that layer 28 is a releasable backer. A releasable backer is “released” on label application and cannot be or become a face of a label.

On page 5 of the OA, the examiner purported to suggest that Tollette discloses sealing along edges (FIG. 3 and 5) as two sheets of face material. Again, this is incorrect. FIG. 5 is the edge view of FIG. 4 (column 2, lines 29-30). Reference numeral 42 is the reverse printed film and reference numeral 52 is the foam layer, not another face sheet. *See also*, column 7, lines 54-68.

Additionally Tollette specifically discloses (column 3, lines 54-62 and claim 3) that:

In addition to standard paper or label stock, I have found that clay coated paper and other specialty papers used in label making can contribute to improved appearance of the laminates, when colorless film is employed. Mention may be made of *metalized* coated papers, which themselves are a laminate of very thin *foil* on one side of a strip of paper, available from such sources as King Seely, and Nicolet may be employed herein.

Claim 3. The laminate of claim 1 wherein the paper is a prelaminate of the *metallic* foil and paper.
(*italics* applicants’)

Metallized paper and *metallic* foil are known to one skilled in the art as thermal conductors, *not* thermal insulators. Tollette label stock therefore does not have the thermal resistance as the examiner calculated. As such, Tollette leads one skilled in the art away from the invention, which calls for thermal insulation.

In summary, Tollette does not suggest at least these elements: (1) a thermal insulating layer has laminated thereon a face material; (2) the face material is a single sheet material having a first layer and second layer; and (3) the second layer has a lower melting temperature than the first layer. The question is whether combining Tollette and Keiser suggests these elements.

2. Office Action and Keiser

Examiner asserted (page 4 of OA, first full paragraph) that Keiser teaches a substrate comprising *thermoplastic* (*italics* applicants’) fibers or foam (column 3, line

62) for the purpose of creating label stock. Applicants respectfully disagree because Keiser does not disclose or suggest the word “*thermoplastic*” in column 3, line 62.

As compared in the table shown above, Keiser merely discloses using microcellular foam for a release liner for potential cost advantages. *See, e.g.*, FIG. 2 and column 4, lines 44-67. As discussed above, a release liner cannot be part of a label because it is “released” during label application. It is clear that Keiser does not disclose or suggest using microcellular foam as insulating layer.

In fact, Keiser actually teaches away from either of these materials as having any differentiated properties (insulating or otherwise) because Keiser discloses these materials in the group with metal foils that are known heat conductors and poor insulators. Keiser (col. 3, line 59 to col. 4, line 3) specifically discloses that metallized films, metallized paper, and metal foils are considered to be the equivalent of polymer foams and sheets formed of synthetic staple fibers. Metallized films, metallized paper, and metal foils, though, are known to those skilled in the art to be thermal conductors, rather than thermal insulators. Therefore, applicants respectfully submit that Keiser does not teach or suggest that foams are equivalent to the insulating layer having thermal insulation. It follows logically that Keiser cannot be suggest the elements missing in Tollette.

In summary, Keiser does not suggest a label stock requiring an insulating layer. As such, Keiser is not an analogous art and cannot be combined with Tollette.

Even if Keiser can be combined with Tollette, the combination does not suggest a label comprising a thermal insulating layer having laminated thereon a face material that is a single sheet material.

Claim 20 was rejected under 35 USC 103(a) over Tollette and Yamada (US 6,306,492). The rejection is traversed for the following reasons.

As discussed above, Tollette does not suggest the claimed invention that requires an insulating label stock comprising (1) a thermal insulating layer has laminated thereon a face material; (2) the face material is a single sheet material having a first layer and second layer; and (3) the second layer has a lower melting temperature than the first layer. The question is whether Yamada suggest the elements missing in Tollette.

The above discussion of Tollette is incorporated herein for the interest of brevity. As discussed, the examiner's assertions concerning Tollette in paragraph 7 of the OA (pages 5-6) are submitted to be in error.

Yamada merely discloses a laminated polyester film comprising (1) a polyester base film layer and (2) an acid anhydride-grafted polyester film layer. It does not disclose or suggest a label stock comprising an insulating layer. It is not in applicant's field of endeavor. Nor does it relate to the problem (as disclosed in the background of the invention is the thick label being produced) with which applicants were concerned. It therefore cannot be an analogous art combinable with Tollette.

Even if it can arguably be combined with Tollette, the combined disclosure does not suggest the elements missing in Tollette. Claim 20 therefore is unobvious over Tollette and Yamada.

Claims 25-26 and 29-30 were rejected under 35 USC 103(a) over Tollette and McFall (US 6,479,631).

Claims 34-35 were rejected under 35 USC 103(a) over Tollette and McFall (US 6,479,631).

These two rejections are traversed for the following reasons.

As discussed above, Tollette does not suggest at least three elements missing in the claimed invention: (1) a thermal insulating layer has laminated thereon a face material; (2) the face material is a single sheet material having a first layer and second layer; and (3) the second layer has a lower melting temperature than the first layer. The question is whether McFall suggest the elements missing in Tollette.

The above discussion of Tollette is incorporated herein for the interest of brevity. For the reasons and discussions presented above, the examiner's assertions concerning Tollette in paragraphs 8-9 of the OA (pages 6-7) are submitted to be in error.

McFall merely discloses a lamination for information-disclosing label, which is not the "label" of concern to applicants. That is, the information-disclosing label is not an insulated label. The lamination comprises a substrate, a coating on the substrate, a protective layer over the coating, and an adhesive between the coating and the protective layer. Regardless what the biaxially oriented film disclosed in McFall, McFall is not a related or analogous art that can be combined with Tollette.

Even if McFall can arguably be combined with Tollette, the combined disclosure does not suggest the elements missing in Tollette. Claim 25-26, 29-30, and 34-35 therefore are unobvious over Tollette and McFall.

Respectfully submitted,


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